

Mr. Ronald Collins
Delphi Energy & Engine Management Systems
2900 South Scatterfield Road
Anderson, Indiana 46011

Re: 095-11322-00016
Minor Source Modification to:
Part 70 permit No.: T095-6388-00016

Dear Mr. Collins:

Delphi Energy & Engine Management Systems was issued Part 70 operating permit T095-6388-00016 on August 31, 1999 for the operation of an automotive parts manufacturing plant. An application to modify the source was received on September 3, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

Two (2) natural gas-fired boilers, identified as boiler A and boiler B, each boiler has a heat input capacity of 33.5 million Btu per hour (mmBtu/hr). These boilers are currently installed at Plant #17, and proposed to be moved to Plant #11.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the IDEM, Office of Air Management (OAM), and Anderson Office of Air Management.
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

APD

cc: File -Madison County
U.S. EPA, Region V
Madison County Health Department
Anderson Office of Air Management
Air Compliance Section Inspector - Jim Thorpe
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**PART 70 MINOR SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT
and Anderson Office of Air Management**

**Delphi Energy & Engine Management Systems
2900 South Scatterfield Road
Anderson, Indiana 46011**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Minor Source Modification No.:095-11322-00016	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION D.3 FACILITY OPERATION CONDITIONS

Two (2) natural gas-fired boilers, identified as boiler A and boiler B, each boiler has a heat input capacity of 33.5 million Btu per hour (mmBtu/hr). These boilers are currently installed at Plant #17, and proposed to be moved to Plant #11.

Emission Limitations and Standards [326 IAC 2-7-5(1)]**D.3.1 Oxides of Nitrogen (NOx) Emissions Limit**

The total natural gas usage from the two (2) 33.5 mmBtu/hr boilers, A and B shall be limited to less than 247 million cubic feet (MMCF) per twelve-month period, rolled on a monthly basis. This natural gas usage limitation is equivalent to NOx emissions limit less than 25 tons per twelve-month period.

During the first twelve (12) months of operation, the natural gas usage shall be limited such that the total natural gas usage divided by accumulated months of operation shall be less than 20.58 MMCF average per month, rolled on a monthly basis. Compliance with this condition will make 326 IAC 2-7-10.5(f), Significant Source Modification not applicable.

D.3.2 Particulate Matter Limitation (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the particulate matter emissions from each of the 33.5 mmBtu/hr boiler shall be limited to 0.27 pound per million Btu (lb/mmBtu).

D.3.3 New Source Performance Standards (NSPS) 40 CFR § 60.48, Subpart Dc

Pursuant to 40 CFR § 60.48c, Subpart Dc, Subsections (a), (g) and (i), the two (2) 33.5 mmBtu/hr boilers shall comply with the following requirements:

- (a) Under Subsection (a) of § 60.48c, the Permittee shall submit notification of the date of construction, or reconstruction, anticipated startup and actual startup of the two (2) boilers as provided by 40 CFR § 60.7. The notification shall include:
 - (1) The design heat input capacity of the two (2) boilers and identification of the fuel to be combusted; and
 - (2) the annual capacity factor at which the Permittee anticipates operating the two (2) boilers, based on all fuels fired and based on each individual fuel fired.
- (b) Under Subsection (g) of § 60.48c, the Permittee shall maintain records of the amounts of fuel combusted during each month for the two (2) boilers.
- (c) Under Subsection (i) of § 60.48c, all records required by § 60.48c shall be maintained by the Permittee for the two (2) boilers for a period of two (2) years following the date of such record.

Compliance Determination Requirements**D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]**

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM or Anderson Office of Air Management compliance with the Oxides of Nitrogen (NOx) limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**D.3.5 Record Keeping Requirements**

- (a) To document compliance with Condition D.3.1, the Permittee shall maintain meter readings of the natural gas fuel usages monthly. The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the recording/monitoring.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of the Part 70 permit.

D.3.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1, and the natural gas fired boiler certification shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 460111

using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

Anderson, Indiana
Permit Reviewer: Aida De Guzman

Minor Source Modification No. 095-11322-00016

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and ANDERSON OFFICE OF AIR MANAGEMENT**

**PART 70 SOURCE MODIFICATION
CERTIFICATION**

Source Name: Delphi Energy & Engine Management Systems
Source Address: 2900 South Scatterfield Road, Anderson, Indiana 46011
Mailing Address: 2900 South Scatterfield Road, Anderson, Indiana 46011
Source Modification No.: 095-11322-00016

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Anderson, Indiana
Permit Reviewer: Aida De Guzman

Minor Source Modification No. 095-11322-00016

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and ANDERSON OFFICE OF AIR MANAGEMENT**

Part 70 Source Modification Quarterly Report

Source Name: Delphi Energy & Engine Management Systems
Source Address: 2900 South Scatterfield Road, Anderson, Indiana 46011
Mailing Address: 2900 South Scatterfield Road, Anderson, Indiana 46011
Source Modification No.: 095-11322-00016
Facility: Two (2) 33.5 mmBtu/hr natural gas-fired boilers
Parameter: Oxides of Nitrogen (NOx)
Limit: Shall be less than 247 million cubic feet (MMCF) natural gas usage per twelve-month period, rolled
on a monthly basis. This natural gas usage limitation is equivalent to NOx emissions limit to less than 25 tons per twelve-months.

During the first twelve (12) months of operation, the natural gas usage shall be limited such that the total natural gas usage divided by accumulated months of operation shall be less than 20.58 MMCF average per month, rolled on a monthly basis.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Natural Gas Usage This Month	Natural Gas Usage Previous 11 Months	Natural Gas Usage 12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**Indiana Department of Environmental Management
Office of Air Management
and Anderson Office of Air Management**

**Technical Support Document (TSD) for a Part 70 Minor Source
Modification**

Source Background and Description

Source Name:	Delphi Energy & Engine Management Systems
Source Location:	2900 South Scatterfield Road, Anderson, Indiana 46011
County:	Madison
SIC Code:	3714
Operation Permit No.:	T095-6388-00016
Operation Permit Issuance Date:	August 31, 1999
Minor Source Modification No.:	095-11322-00016
Permit Reviewer:	Aida De Guzman

The Office of Air Management (OAM) has reviewed a modification application from Delphi Energy & Engine Management Systems relating to the construction of the following emission units:

Two (2) natural gas-fired boilers, identified as boiler A and boiler B, each boiler has a heat input capacity of 33.5 million Btu per hour (mmBtu/hr). These boilers are currently installed at Plant #17, and proposed to be moved to Plant #11.

History

On September 3, 1999, Delphi Energy & Engine Management Systems submitted an application to the OAM requesting to install the above two (2) boilers to their existing plant (Plant #11). The two boilers were constructed for Plant # 17of Delphi Energy & Engine Management Systems. These boilers were then transferred to Delco Remy America when they leased Plant #17. Now, Delco Remy America has vacated Plant #17. Delphi Automotive Systems wants to move the boilers back to their existing plant operations at Plant #11.

Delphi Energy & Engine Management Systems was issued a Part 70 permit (T095-6388-00016) on August 31, 1999.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
A33WA32	Boiler A	34	2.67	10,981	428
C33NA32	Boiler B	34	2.67	10,981	428

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 3, 1999. The source made the decision on September 22, 1999, to proceed with a minor source modification review, instead of a significant source modification.

Emission Calculations

Boilers Emissions: See Page 1 of 1 TSD Appendix A for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.6
PM-10	2.2
SO ₂	0.2
VOC	1.6
CO	24.6
NO _x	29.6

Justification for Modification

The uncontrolled Oxides of Nitrogen (NO_x) potential to emit is greater than the threshold in 326 IAC 2-7-10.5(f) for a Significant Source Modification. However, the source requested that the NO_x PTE be limited to below 25 tons per year, in order to be subject to 326 IAC 2-7-10.5(d)(5) Minor Source Modification.

County Attainment Status

The source is located in Madison County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Madison County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Madison County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1996 OAM emission data.

Pollutant	Actual Emissions (tons/year)
PM	1.8
PM-10	1.8
SO ₂	0.02
VOC	105.5
CO	0.97
NO _x	3.9
HAP- Glycol Ether*	38

Limited Potential to Emit

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units.

	Potential to Emit (tons/year)					
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x
2 natural gas-fired boilers @ 33.5 mmBtu/hr	< 0.50	< 1.86	< 0.16	< 1.35	< 20.7	< 25
Total	< 0.50	< 1.86	< 0.16	< 1.35	< 20.7	< 25

Limit : Limiting the Fuel usage will also limit the other criteria pollutant emissions.

NO_x Limit = <25 ton/yr

Fuel Usage Limit = 25 ton/yr /29.6 ton/yr * 293.5 MMCF/yr
 = < 247 MMCF/yr

CO = 25 tons/yr /29.6 tons/yr * 24.6 tons/yr
 = < 20.7 ton/yr

VOC = 25 tons/yr /29.6 tons/yr * 1.6 ton/yr
 = < 1.35

$$\begin{aligned}\text{SO}_2 &= 25 \text{ tons/yr} / 29.6 \text{ tons/yr} * 0.2 \text{ ton/yr} \\ &= < 0.16 \\ \\ \text{PM} &= 25 \text{ tons/yr} / 29.6 \text{ tons/yr} * 0.6 \text{ ton/yr} \\ &= < 0.50 \\ \\ \text{PM}_{10} &= 25 \text{ tons/yr} / 29.6 \text{ tons/yr} * 2.2 \text{ ton/yr} \\ &= < 1.86\end{aligned}$$

Federal Rule Applicability

(a) New Source Performance Standards (NSPS):

- (1) 40 CFR Part 60.40c, Subpart Dc -Standard of Performance for Small Industrial-Commercial -Institutional Steam Generating Units for which Construction, Reconstruction, or Modification is commenced after June 9, 1989, with a maximum design heat input of 100 mmBtu/hr or less but greater than 10 mmBtu/hr.

The two (2) 33.5 mmBtu/hr natural gas-fired boilers are subject to § 60.48 Subsections (a), (g) and (i) of this NSPS.

- (a) Under Subsection (a) of § 60.48, the owner/operator of the two (2) boilers shall submit notification of the date of construction, or reconstruction, anticipated startup and actual startup as provided by § 60.7 of this part. The notification shall include:

- (1) The design heat input capacity of the two (2) boilers and identification of the fuel to be combusted; and
- (2) the annual capacity factor at which the owner/operator anticipates operating the two (2) boilers, based on all fuels fired and based on individual fuel fired.

- (b) Under Subsection (g) § 60.48, the owner/operator of the two (2) boilers shall maintain records of the amounts of fuel combusted during each month.

- (c) Under Subsection (i) § 60.48, all records required in this Section shall be maintained by the owner or operator of the two (2) boilers for a period of two (2) years following the date of such record.

- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs):
There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

- (1) 326 IAC 6-2-4 (Particulate Matter Emissions Limit for Indirect Heating Facilities)
The two (2) natural gas-fired boilers are subject to this rule. This rule mandates a PM emissions limit using the following equation:

$$\begin{aligned} P_t &= 1.09 / Q^{0.26} \\ &= 1.09 / (204.8)^{0.26} \\ &= 0.27 \text{ lb/mmBtu} \end{aligned}$$

Where P_t = Pounds of PM emitted per million Btu (lb/mmBtu) heat input.
 Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input.
 $= [(2 * (68.9 \text{ mmBtu/hr})) + [(2 * (33.5 \text{ mmBtu/hr}))]$
 $= 204.8 \text{ mmBtu/hr}$

Using natural gas as fuel:

$$1.9 \text{ lb/MMCF} * 1\text{MMCF}/1000 \text{ mmBtu} = 0.0019 \text{ lb/mmBtu}$$

Each boiler is in compliance with the PM limit of 0.27 lb/mmBtu, because each boiler emits 0.0019 lb of PM / mmBtu, which is less than the limit.

- (b) There are no other 326 IAC 8 rules that would possibly apply to these two (2) natural gas-fired boilers.
- (c) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitation)
This rule applies to fuel combustion facilities with potential to emit of twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide.

This rule is not applicable to the proposed boilers, because their potential to emit SO_2 (< 0.16 tons per year) is far below the applicability thresholds.

- (d) 326 IAC 9-1-2 (CO Emission Limits)
This rule applies to the following: petroleum refining emissions; ferrous metal smelters; refuse incinerators and burning equipment.

The proposed boilers are not subject to this rule, because they are not one of the listed processes subject to the rule.

- (e) 326 IAC 10-1-1 (NO_x Control in Clark and Floyd Counties)
This rule is not applicable to the proposed boilers, because they are not located in Lake or Floyd County.

Conclusion

The installation of the two (2) natural gas-fired boilers from Plant #17 to Plant #11 shall be subject to the conditions of the attached proposed **Part 70 Minor Source Modification No. 095-11322-00016**.

Appendix A: Emissions Calculations

Page 1 of 1 TSD App A

Natural Gas Combustion Only**MM BTU/HR <100****Small Industrial Boiler****2 natural gas-fired boiler
ea. 33.5 mmBtu/hr****Company Name Delphi Energy Engine Management Systems****Address City 2900 South Scatterfield Rd., Anderson, IN 46011****CP: 095-11322****Plt ID: 095-00016****Reviewer: Aida De Guzman****Date: Sept. 13, 1999**Heat Input Capacity
MMBtu/hrPotential Throughput
MMCF/yr

33.5

293.5

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.3	1.1	0.1	14.7	0.8	12.3
	x 2 boilers	x 2 boilers	x 2 boilers	x 2 boilers	x 2 boilers	x 2 boilers
Total Pot'l Emissions	0.6	2.2	0.2	29.6	1.6	24.6

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
above
emission